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A Study of the Pedestrian Realm and Multi-Modal Access in the St. Johns Town Center

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A Study of the Pedestrian Realm and Multi-Modal Access in the St. Johns Town Center



Prepared For
The Study Advisory Committee and
The Portland State University Master of Urban and Regional Planning
Professional Planning Workshop

Prepared By
Kate Bowie, Kim Miller, Owen Ronchelli, and Sloan Schang

March 2000

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I. EXECUTIVE SUMMARY

The residents of the St. Johns and Cathedral Park neighborhoods regard the St. Johns Town Center as a tremendous amenity. It has successfully served as a destination retail and employment district since the early 1900s but deterioration and a lack of infrastructure improvements are increasingly visible. As a Metro designated town center, the City of Portland is required to conduct a comprehensive planning effort similar to what occurred in the Hollywood Town Center. The project team offers a beginning to that process, with extensive community outreach and data analysis designed to evaluate the pedestrian realm and multi-modal means of access. This Study presents the findings and recommendations of that outreach and analysis.

The project team's outreach efforts recorded substantial community input. The outreach consisted of key informant interviews with local experts, intercept surveys with town center users, and group discussions with neighborhood associations. The project team also conducted an existing conditions inventory and parking inventory and assessment in order to supplement the findings of the community outreach.

In general, the community has high satisfaction with the town center's pedestrian realm. When queried regarding safety issues, residents voiced concerns over significant truck traffic, children walking through the town center to James John Elementary, and the lack of safety in the town center at night due in part to a number of local bars and taverns. The project team also found that there are not enough existing crosswalks in the study area to allow for safe pedestrian crossing.

The needs of elderly and disabled residents of Schunk Tower and the surrounding neighborhoods are not being met. Handicap ramps throughout the town center are not in compliance with the 1990 American with Disabilities Act. The town center also has a significant number of hazards, such as sidewalk cracks, that detract from the safety of the pedestrian environment.

Many business owners identified a lack of quality infrastructure, such as benches, ornamental streetlights, and gateway signs. They cite improvements to existing infrastructure as a possible means of improving the economic viability of the area.

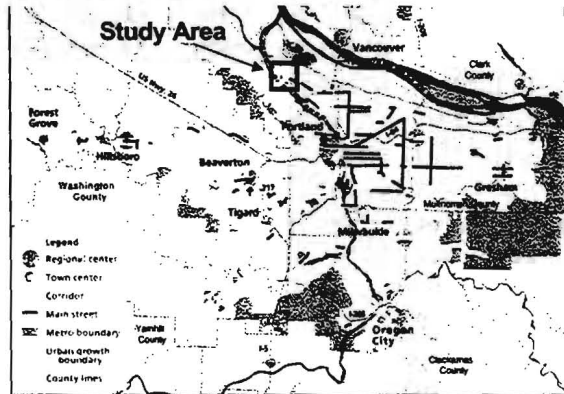
People access the town center in a variety of ways. It was found that there is no shortage of on-street parking in the town center. Transit users in general are satisfied with public transportation to and from the town center. Few cyclists use the town center because of narrow travel lanes and truck traffic.

These concerns and themes are addressed in detail throughout this document. Specific recommendations are made to address each of these concerns.

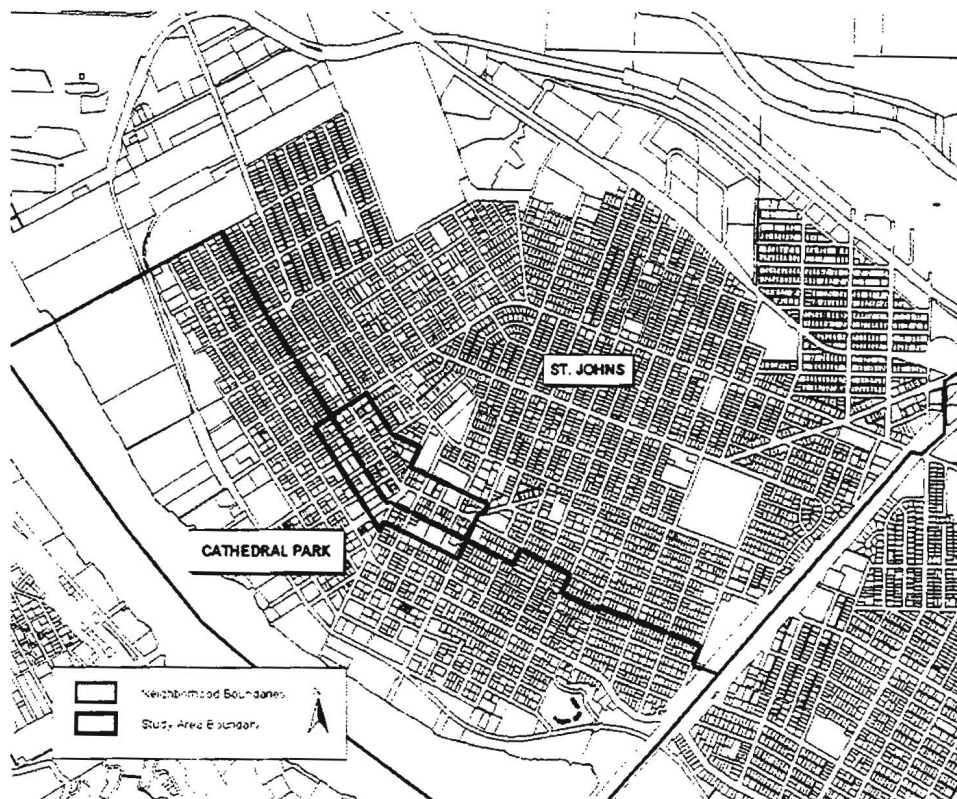
II. INTRODUCTION

II. INTRODUCTION

The St. Johns Town Center is located within the St. Johns neighborhood in North Portland and is bounded on the south by the Cathedral Park neighborhood. Designated as a town center by Metro in the Region 2040 Plan, it sits on the peninsula between the Willamette and Columbia Rivers, isolated from the rest of the region. This isolation makes the town center's functionality vital to its surrounding neighborhoods, and consequently, the central business district's patronage is drawn primarily from their large population base.



In 1996, according to the American Community Survey, the St. Johns and Cathedral Park neighborhoods had a combined population of 17,774. The racial composition of the two neighborhoods reflects a growing percentage of minority populations, which exceeds or equals that of Multnomah County as a whole. Most significantly, individuals of Hispanic origin comprise 9 percent of the neighborhoods' population, as compared to 5 percent of the county's total population. The community's age distribution is similar to that of the larger county and is nearly identical in a number of categories, most notably those 65 years of



age and older (14 percent). This Study gives special attention to the needs of the elderly and disabled based on the proximity of Schrunk Tower to the study area. Schrunk Tower, a Housing Authority of Portland development, is home to a significant elderly and disabled population that relies on the town center to meet its daily needs. The community's median income was approximately \$33,700 in 1996, roughly \$970 above the county's. Conversely, the community showed a poverty level 1 percent above the county average. The available data reveals a diverse town center patron base, which is accompanied by the complex and varied needs of a community in transition.

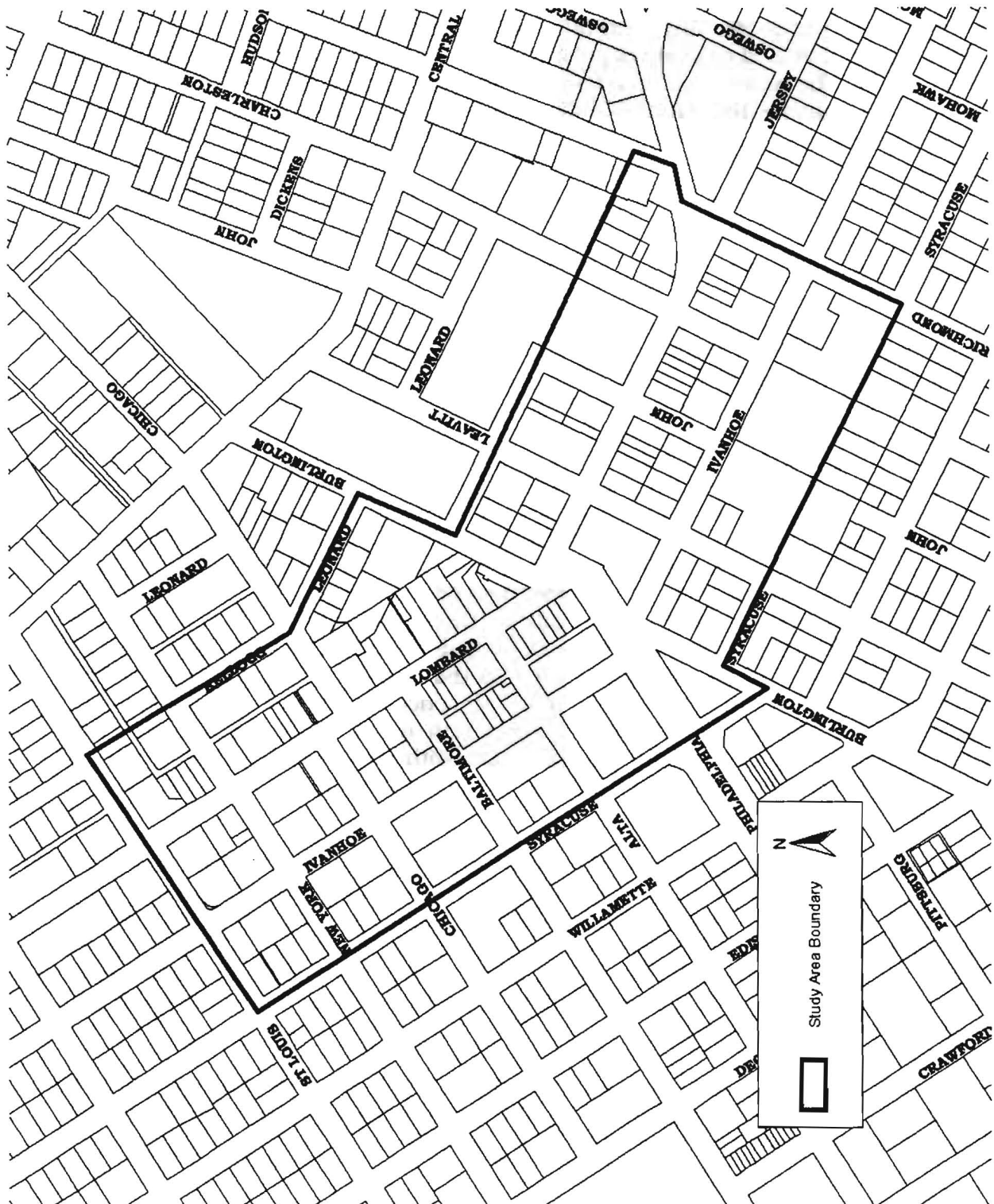
PROBLEM STATEMENT

In the past, transportation-related planning efforts in the St. Johns Town Center have maintained a primary emphasis on improving automobile circulation and access to the central business district. While these past efforts attempted to plan for pedestrian safety and accessibility as well, shortcomings such as unsafe street crossings remain. Consequently, pedestrians in the town center are faced with inadequate circulation infrastructure and related facilities. Despite these shortcomings, the central business district continues to provide local opportunities for shopping and employment. Vacant buildings and lots within the central business district represent the potential for increased pedestrian activity, making it imperative to plan for the needs of pedestrians. Town center users arriving on foot, bicycle, bus, or automobile all become pedestrians. Priority must be given to planning for the safety and accessibility of these pedestrians. A Study of the Pedestrian Realm and Multi-Modal Access in the St. Johns Town Center (the Study) assesses the needs of the pedestrian user, as they navigate the town center. The Study's methodology accomplishes this by concentrating most intensely on uncovering problems that exist in the pedestrian realm. More peripherally, the Study's methodology assesses the user's needs with respect to how they arrive in the town center, by evaluating existing on-street parking, transit and bicycle facilities.

The processes employed in producing this report are designed to replicate the early stages of a neighborhood planning project, wherein extensive information is compiled regarding the study area's existing conditions. Such a neighborhood planning effort is scheduled for the St. Johns Town Center and Lombard Main Street, led by the Portland Bureau of Planning. The project team's ultimate intent is to produce a product that will be useful for professionals and citizen groups during these planning efforts.

The Study area is confined to the town center's central business district and is bounded on the north by Kellogg Street, the south by Syracuse Street, the east by Richmond Avenue, and the west by St. Louis Avenue.

II. INTRODUCTION



PLANNING FRAMEWORK

A number of current and past planning efforts and policies form the framework in which the Study was conducted. They provide an illustrative link to the past and present concerns and needs of town center users, offering guidance throughout the Study process.

CURRENT PLANNING AND POLICY

Metro's 2040 Growth Concept designates portions of the Portland metropolitan area as town centers, main streets, and regional centers. The town center classification applies to mixed-use areas with retail, employment, housing and/or commercial uses. Typically these areas are walkable with good transit service. The St. Johns Town Center embodies all of these characteristics, with the potential for a 480 percent increase in employment under current zoning. The build-out potential estimated by Metro makes the town center a future hub of employment and public transportation in the North Portland peninsula. The official town center designation is accompanied by a mandate to plan, requiring the City of Portland to recognize and treat the St. Johns Town Center as a special place in the region. The Portland Bureau of Planning's scheduled effort, similar to the Hollywood and Sandy Plan, will plan for the needs of the town center's users. Intrinsic to this will be the understanding that the town center's pedestrian users have special needs, and the Study is an important first step in meeting those needs.

As a result of Metro 2040 policy, the City of Portland updated the Pedestrian Master Plan in 1998, establishing a 20-year framework for improving the pedestrian environment city-wide. Several planned and potential projects are identified in the St. Johns Town Center. Of these, the most important is the classification of the town center as a pedestrian district. This designation requires the City to plan and develop improvements to the pedestrian environment within the district and encourage walking as the preferred mode within the town center. The Study will act as an informative precursor to these actions.

The Pedestrian Master Plan has an accompanying guide to aid in implementation of the policy framework. The Pedestrian Design Guide integrates design criteria into standards and guidelines that promote an environment conducive to walking. The guide facilitates the implementation of the design criteria into different developments with unique characteristics and was consulted frequently in the crafting of this project's methodology. Its influence is most apparent in the Study's recommendations.

The 1970s siting of the Rivergate industrial complex in the north Portland peninsula resulted in increased truck traffic moving through the St. Johns Town Center. The St. Johns Truck Strategy, a joint effort between the Portland Department of Transportation, Oregon Department of Transportation, and local residents, is currently addressing the impacts of truck traffic on the town center's surrounding neighborhoods. The goals of the Strategy are: prohibit heavy trucks from cutting through neighborhoods on residential streets; alter/reduce vehicle speed, regardless of vehicle type; and make the neighborhood more pedestrian and bicycle friendly. The project team found the Strategy and the prevalence of truck

II. INTRODUCTION

traffic to weigh heavily on the minds of many neighborhood residents, as represented in the Pedestrian Realm Findings section of this report.

PAST PLANNING AND POLICY

The St. Johns community has been recognized as a strategic location for trade and business, primarily due to its proximity to a large residential population 'isolated' on the peninsula. The town center has long been perceived as an amenity to the City, both for local residents and those beyond, who are all drawn by its array of services and facilities. The desire to support and encourage the area's long-term economic vitality has resulted in several City funded public investment and planning efforts. In their own way, each of these planning efforts shaped the town center's pedestrian realm. Understanding their motives and methods provides a direct link to understanding the issues faced by pedestrians today.

The 1957 Portland Comprehensive Development Plan, St. Johns Area: A Plan for the Development of a North Portland Community was the first comprehensive sub-area development plan to be completed in the City of Portland. The plan had a substantial affect on the town center, as it acknowledged early signs of decline in the central business district. Among its goals was the improvement of the pedestrian realm through the resolution of pedestrian-automobile conflicts. The Study, now more than forty years later, addresses these same issues, illustrating that the complex needs of pedestrians are a longstanding concern to the City and town center community.

The Portland Development Commission, as part of a comprehensive neighborhood preservation program, initiated the 1976 St. Johns Business District Improvement Program. This effort was the first to recognize that high volumes of truck traffic and general traffic congestion presented significant barriers to the revitalization of the town center. Several transportation projects attempted to mitigate these barriers, with the goal of making the central business district accessible and appealing to users arriving and circulating via various transportation modes. The most relevant of these projects included: diverting truck traffic off Lombard and onto Ivanhoe; vacating several streets at key locations in order to improve pedestrian connections; the development of a transit station and central plaza; and the redesign of several key intersections to improve traffic circulation and create a gateway to the central business district. The following two companion efforts expanded on the original Program:

- *St. Johns Building Improvement Handbook: A Five-Year Action Plan.* Funded by a grant from the National Endowment for the Arts, the Handbook was used to establish an overall business district design theme and guide building improvements and new development in the business district. In doing so, the pedestrian realm would see significant improvements. Steps for implementing a parking program, street tree program, and security program for the district, as well as remodeling tips and financing information, are contained in the Handbook.
- *St. Johns Business District Improvement Program: A Case Study.* This 1982 study was conducted to determine the impact of the St. Johns Business

District Improvement Program. It reported key findings, project elements that were implemented, and the effectiveness of the Program's actions. This assessment revealed that the implemented actions have had mixed results in improving access and visibility in the business district, for all modes of travel. A number of local merchants reported that the major redesign of several key intersections had a negative impact on their business, while others felt that it had the intended effect of slowing down incoming auto traffic and enhancing the pedestrian experience.

CLIENT

The project team assembled the Study Advisory Committee (the Committee) to serve as the project client. Members of the Committee include stakeholders with an interest in the St. John's community and 'experts' in local issues. A list of potential Committee members was refined with the assistance of neighborhood groups and contacts at several city bureaus familiar with the town center community. After initial contact with the Committee members, each reviewed and commented on a draft copy of the project contract, helping to further refine the project scope and methodology.

The Committee met three times during the Study process, with informal meetings more frequently. Committee members maintained open lines of communication with the project team, responding to their requests for information or input. The careful selection of the Committee members ensured the project team received constructive feedback and guidance throughout the Study process.

COMMITTEE MEMBERS

Kevin O'Sullivan and Sharon Ray, Neighborhood Association Representatives

The neighborhoods surrounding the St. Johns Town Center are the immediate source of its patronage and the greatest determinant in its success or failure. Kevin O'Sullivan served as the representative to the St. Johns Neighborhood Association and Sharon Ray represented the interests of Cathedral Park.

Carola Fitzhugh, Resident

Carola Fitzhugh is currently a resident of the Schrunk Towers, which is operated by the Housing Authority of Portland and home to approximately 120 senior and disabled individuals. Schrunk's close proximity to the goods and services offered in the town center results in the residents' frequent use of the pedestrian realm. Carola provided a link to this community, representing their unique perspective and specific needs.

II. INTRODUCTION

Steve Gerber, Portland Department of Transportation

Steve Gerber is currently a transportation planner with Portland Department of Transportation providing the Committee with technical transportation and planning expertise. He is currently in charge of coordinating the aforementioned St. Johns Truck Strategy and has ten years of experience with the City of Portland.

Mike Verbout, James John School

Mike Verbout is the principal of James John Elementary School, which is located within the town center. He provided the young person's perspective, highlighting the needs of children accessing the school by way of the central business district. He also has a long history in the community and provided connections with community members.

PROJECT AND REPORT ORGANIZATION

This report details the methods used to address the stated problem, the findings that resulted, and the project team's synthesis of those findings as recommendations. This information is contained within two sections: Pedestrian Realm and Multi-Modal Access.

Information used in evaluating the pedestrian realm was derived from four sources: secondary data, such as transit ridership counts and traffic accident counts; a street furniture inventory identifying infrastructure items and hazards such as phone booths, crosswalks, trash cans, and sidewalk abnormalities; an intercept survey of 100 town center users; two directed group discussions at St. Johns and Cathedral Park Neighborhood Association meetings; and key informant interviews with community members representing a variety of interest groups.

Information used in evaluating multi-modal access was derived from four sources: a comprehensive on-street parking inventory and assessment examining parking capacity, turnover rates, and peak hour use; a street furniture inventory identifying existing bicycle and transit infrastructure; an intercept survey gathering information on transit user and bicyclist satisfaction and needs; and key informant interviews that revealed detailed information about bicyclist behavior in the study area.

A Conclusions section, as well as two appendices presenting supplementary findings and analysis, complete the report.

III. PEDESTRIAN REALM

This section explores how effectively the town center serves the needs of pedestrians. While the Metro 2040 Growth Concept encourages alternative modes of access to the town center, it also emphasizes that no matter how people arrive, they find a safe and pleasant pedestrian environment.

The pedestrian realm is defined as the sidewalk space from the curb to the property line and any street furniture and infrastructure located therein, open spaces and plazas, and street crossings, with and without marked crosswalks.

APPROACH

The Study employed multiple data collection approaches in order to evaluate the pedestrian realm. The project team began by collecting existing secondary data, including demographics, local policies and regulations, and previous planning documents relating to the town center. This information provided a framework for the development of the methodology and in many cases directly informed the Study's recommendations. To capture the physical elements of the pedestrian realm, the project team conducted a street furniture inventory, recording the presence or lack of existing infrastructure, hazards, and amenities.

The secondary data and street furniture inventory provided the background necessary to prepare and conduct the public outreach portion of the Study. In order to identify needs in the pedestrian realm, it was necessary to obtain input from the frequent users capable of speaking directly to its strengths, weaknesses, and observed changes. Three tasks accomplished this: intercept surveys, group discussions, and key informant interviews.

The project team conducted key informant interviews with nine members of the town center community, chosen with guidance from the Committee. The interviewees represented a number of different interests and perspectives. The informants included business owners, an employee, an elderly and disabled representative, local police, the clergy, and a citizen activist, all of whom brought a greater understanding of pedestrian needs in the town center. Two discussions were also conducted with the St. Johns and Cathedral Park Neighborhood Associations to identify problematic intersections and corridors in the study area.

In order to gain the specific input of an even wider range of town center users, the project team administered 100 intercept surveys. Every attempt was made to intercept a variety of people in the town center, by interviewing people at different times of the day, days of the week, and at different locations in the town center. Despite this effort, transit users may have been interviewed disproportionately because they were the more willing to participate while waiting for the bus. The survey explored issues of pedestrian safety and connectivity, public transit service satisfaction, and bicycle use and satisfaction. A copy of the survey and detailed survey findings can be found in Appendix 1.

III. PEDESTRIAN REALM

All findings and recommendations are presented in two categories: general town center findings and recommendations arranged by topic (amenities, handicap ramps, crosswalks, and safety perceptions); and travel corridors and the intersections contained within them. All represent the common themes, concerns and issues that emerged from the street furniture inventory, meetings with neighborhood associations, intercept surveys, and key informant interviews.

GENERAL TOWN CENTER FINDINGS AND RECOMMENDATIONS

AMENITIES

High quality amenities located in the pedestrian realm can enhance the pedestrian experience, encouraging pedestrian travel. The town center was found to have an average of eleven amenities per intersection, including items such as benches, bicycle racks, newsstands, and street trees. The most prevalent amenity in the town center is the street tree, with an average of nine per intersection. Street trees contribute positively to the overall appearance of the pedestrian realm, by providing color and shade in the spring and summer months, and provide a buffer between the pedestrian and the street.



Examples of existing town center amenities

Other amenities that occur in the study area are public green and plaza spaces, such as the transit plaza and the welcome island at Lombard, Jersey and Richmond. While these spaces do enhance the pedestrian experience, community members identified them as being poorly designed and maintained. If designed correctly and maintained regularly, these areas could easily serve as community gathering places.

The town center lacks identity and uniformity in its pedestrian environment. A number of signature amenities, such as the clock tower, Benson Bubbler style drinking fountains, and gateway welcome signs, stand alone and are in need of maintenance. Additionally, amenity items in the town center are most concentrated near its geographic center and are very sparsely located at its edges, creating an inconsistent and often unfriendly pedestrian experience. Throughout the Study, business owners mentioned this lack of identity and inconsistent amenity location as a major barrier to the economic development of the town center.

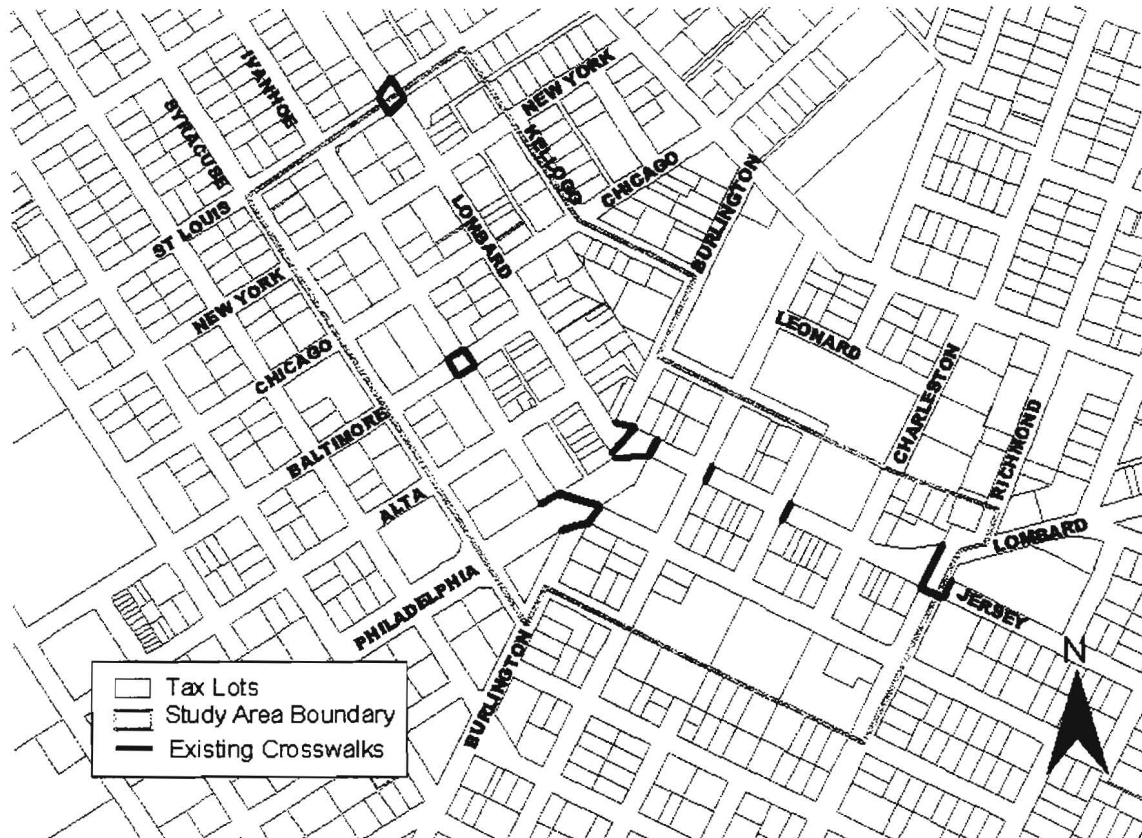
RECOMMENDATIONS

- *Improve the quality, quantity and orientation of amenities in the town center. Examples include: providing benches and trash receptacles in frequent and appropriate locations, the use of varied and unique paving patterns, the addition of public art and water features, and the addition of planters. These amenities should be of a high quality and have a unifying style that adds identity to the town center.*
- *Update the gateway (welcome) signs at the east, west, and south ends of the central business district incorporating better quality and design.*
- *Improve public green and plaza spaces in the town center with quality street furniture and a more accommodating and inviting design.*

III. PEDESTRIAN REALM

CROSSWALKS

Striped crosswalks allow pedestrians to cross safely at intersections and define the pedestrian right-of-way for the motorist. The study area has a total of 21 striped crosswalks, an average of 0.6 per intersection. The existing crosswalks are typically located at intersections with high volumes of traffic, such as Philadelphia and Ivanhoe, or in some areas of frequent pedestrian activity, such as Lombard and John near James John Elementary School.



The Portland Pedestrian Master Plan recommends improving and identifying additional pedestrian crossings in areas of high pedestrian use and where children walk to school. Design guidelines for locating crosswalks in pedestrian districts indicate that the crosswalks should be no more than 200 to 300 feet apart and no closer than 150 feet (where blocks are longer than 400 feet). According to this policy, the town center has a significant deficiency of striped crosswalks. The Study addresses this deficiency by recommending that striped and/or signalized crosswalks be added to specific intersections. These additions can be found in the travel corridor and intersection recommendations.



Faded crosswalks due to heavy traffic.

III. PEDESTRIAN REALM

Existing crosswalks in the town center show significant signs of wear and fading due to heavy truck and automobile traffic. Faded crosswalks decrease the visibility of the pedestrian right-of-way, making these crossings more hazardous.

RECOMMENDATION

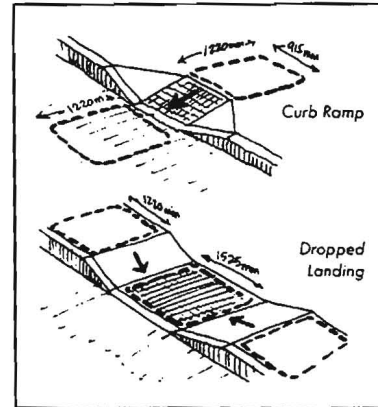
- *Re-stripe all existing crosswalks in the town center.*



III. PEDESTRIAN REALM

HANDICAP RAMPS

Handicap ramps are essential for safety and function at intersections. The Americans with Disability Act (ADA) of 1990 created new standards of accessibility for disabled citizens, improving mobility and allowing for safer travel. In response, the City of Portland has established standards and guidelines to promote styles of pedestrian infrastructure, especially handicap ramps, that meet ADA standards. There are two types of ramps recommended by the City of Portland. The preferred type, a dropped landing ramp, places the bottom landing within the sidewalk area to protect persons in wheelchairs from traffic. The dropped landing ramp allows the wheelchair user to enter or exit the street without simultaneously traversing an incline. A traditional style ramp may also be considered compliant if it meets standards for both slope and placement. A number of handicap ramps in the town center are not ADA compliant and none are of the dropped landing design.



Preferred Handicap Ramps

Approximately seven percent of the town center community's population is disabled and unemployed and 14 percent are age 65 or older. While the percentage of elderly and disabled individuals in the community is not higher than Multnomah County, there is one additional factor contributing to the need for ADA compliance in the town center. Schrunk Tower, home to 120 elderly and disabled residents, is located adjacent to the study area at the corner of Chicago and Syracuse Streets. These residents have a greater need for ADA compliant handicap ramps because of their frequent use of and proximity to the town center.

The Portland Pedestrian Master Plan requires at least one handicap ramp per corner of all intersections. Ideally, there should be two ramps at each corner of intersections with high pedestrian usage. The study area has an average of 3.3 ramps per intersection, indicating non-compliance at a number of intersections. These intersections often have a ramp on one side of the street and not the other. In one circumstance, a signalized crosswalk at Lombard and John connects to a sidewalk with no handicap ramp on the south side of Lombard.

Another inadequacy associated with ramps in the town center is the poor condition of the transition between the ramp and the street. The concrete ramp deteriorates at a slower pace than the asphalt used on road surfaces, resulting in a depression or lip at the bottom of the ramp. This is a critical issue for elderly and disabled persons, as this abnormality can cause wheelchairs to tip if not properly maintained. In addition, many ramps have pooled water that develops at the base of the ramp, obscuring ramp abnormalities and generally discouraging use.



Non-Functional Handicap Ramp

RECOMMENDATIONS

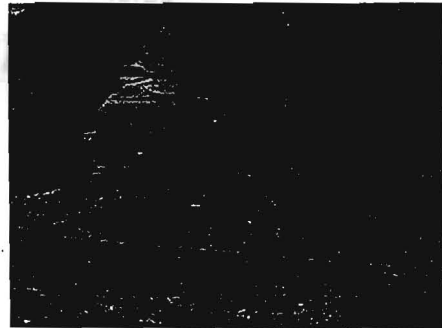
- *All existing ramps should be evaluated for safety (slope, depressions, and standing water).*
- *The dropped landing ramp should be used whenever possible throughout the town center. For intersections where the dropped landing ramp is not feasible, a traditional curb ramp should be installed compliant with ADA standards*
- *All intersections lacking at least one ramp per corner should be upgraded with compliant ramps at all four corners.*

III. PEDESTRIAN REALM

HAZARDS

The pedestrian realm should be free of obstructions and hazards. The Study addresses several types of hazards in the town center. Three types of hazards were identified during the street furniture inventory: telephone pole tethers, dumpsters on the sidewalk, and significantly cracked or broken sections of sidewalk. There is an average of two hazards per intersection in the town center.

Sidewalks throughout the town center are generally in poor condition. Street trees in the area raise and crack large portions of sidewalk as their root systems grow over time. In addition, several sections of sidewalk have depressions in which pools of water collect (insert picture). These types of hazards present a major obstacle to the safe travel of elderly and disabled town center users. The City of Portland Charter assigns responsibility for the maintenance of sidewalks to the owner of the abutting property. Bureau inspectors assess sidewalks and notify the property owner of needed repairs. In the event



Cracked Sidewalks



Pooled Water on Sidewalk

timely repairs are not made by the property owner, the Bureau of Maintenance hires a private contractor to make the repairs and bills the property owner for the costs. This process has not been implemented in the town center, as evidenced by the project team's findings.

The location of dumpsters on the sidewalk is another hazard in the town center. City of Portland regulations prohibit private property owners from locating obstructive objects in the pedestrian right-of-way.

Community members identified heavy truck traffic travelling on Ivanhoe as a barrier to enhancing the pedestrian realm. This issue was raised repeatedly in discussions with both neighborhood associations, and in particular, the St. Johns Neighborhood Association identified it as the greatest danger in the pedestrian realm. Although the Study's travel corridor and intersection recommendations are intended to calm traffic and increase the number of safe crossings on Ivanhoe, the rerouting of truck traffic is not addressed.

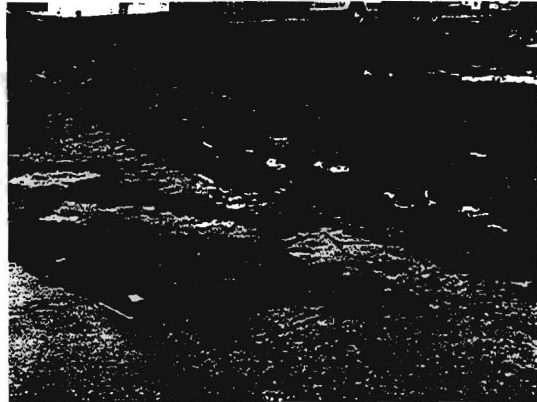
RECOMMENDATIONS

- *Repair and replace sidewalks with cracks, depressions or other abnormalities throughout the district.*
- *In the interim, paint sidewalk abnormalities bright yellow to alert pedestrians to their presence.*
- *All dumpsters should be removed from the sidewalk.*

III. PEDESTRIAN REALM

LITTER

Intercept survey respondents ranked litter pick-up as the town center's greatest need. Its presence detracts from the character and quality of the pedestrian realm and discourages pedestrian activity. The town center averages less than one trashcan per intersection, and those available are often overflowing, exacerbating the litter problem.



Litter detracts from the quality of the pedestrian environment.

RECOMMENDATIONS

- *Initiate a recurring Litter Pick Up Day that boosts community pride by involving community residents, churches, business, and local schools. This can be an event sponsored by local civic and community organizations, such as the St. Johns Business Boosters or Neighborhood Association.*
- *Increase frequency of regular City maintenance of the town center that would include emptying trashcans and cleaning the street (street-sweeping service) and sidewalks.*
- *Increase the number of trashcans available along main travel corridors such as Lombard and Ivanhoe.*

SAFETY PERCEPTIONS

Safety in the town center is a concern for many pedestrian users, especially at night. Perceptions of safety can be interpreted as being related to either crime or inadequate pedestrian infrastructure. Intercept survey respondents typically linked questions of safety to crime, often citing the presence of pubs and taverns and their association with drunk and disorderly conduct. Additionally, respondents pointed to an increased drug presence and loitering during the evening hours. As a result, the respondents perceive the town center as safer during the day than at night. Intercept survey respondents chose police foot/bike patrol as the most necessary town center improvement.

This perception may also be partly attributed to a lack of pedestrian oriented street lighting. The existing lighting in the town center is oriented toward auto use and is typically of the cobra style. This results in darker sidewalks as light filters through the town center's abundant street trees.

Crime statistics for 1999 indicate that the town center community has a higher occurrence of crime than the Portland region as a whole, with 34 more instances per 1000 people. While the crime rate is higher in the St. Johns neighborhood, this does not directly imply that the town center has a higher crime rate than the rest of the region. Many of the crimes reported in the crime statistics may not actually occur in the town center itself, but rather within the larger neighborhood boundary.



Auto oriented street lighting.

Two police officers assigned to the North District cited the increase in homeless persons and campers as one change in the town center. Homeless individuals often make pedestrians feel less comfortable and add to the perception of an unsafe environment. The town center's homeless population was not cited as a significant safety issue during discussions with community members.

A minority of survey respondents associated their perception of town center safety with potential or actual pedestrian/automobile conflicts. According to the Portland Department of Transportation, of the 124 accidents reported in the study area between 1995 and 1998, only 6.5 percent involved pedestrians and/or cyclists. Ivanhoe and Baltimore and Lombard and St. Louis are the only two intersections in the study area that recorded two or more bicycle/pedestrian accidents during this time period. Both have common attributes, such as crosswalk striping and push button signal operation, and both are within the commercial truck route that passes through the town center.

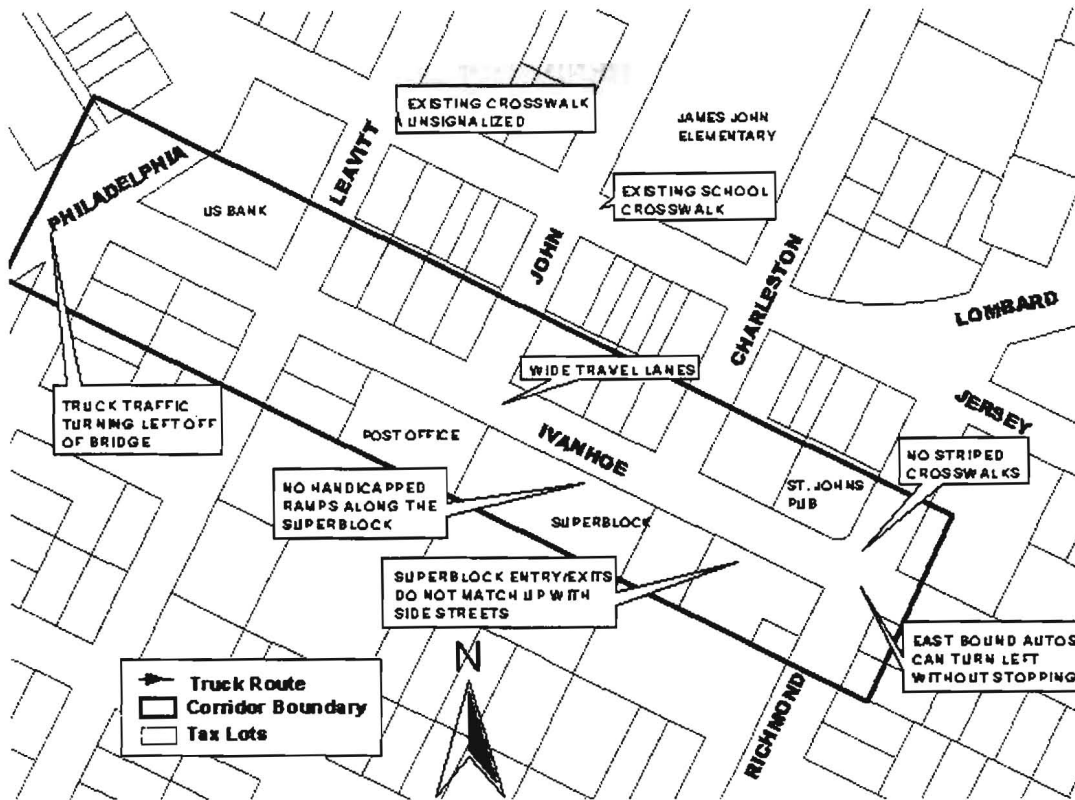
III. PEDESTRIAN REALM

RECOMMENDATIONS

- *Initiate a regular foot/bike police patrol in the town center during the evening. This is especially recommended for weekends, when pedestrian activity during the evening hours is more likely.*
- *Improve street lighting throughout the town center. Decorative lighting could be used to not only improve evening visibility, but also provide aesthetic improvements during the daytime hours. Tall 'cobra' style light poles could be replaced with shorter decorative street lamp posts bringing the actual light source closer to the pedestrian level.*
- *Increase the frequency of tree trimming service in heavily shaded areas along Ivanhoe. This would allow for better light penetration at the street level.*

CORRIDORS AND INTERSECTIONS

THE EAST IVANHOE CORRIDOR: PHILADELPHIA TO RICHMOND



This corridor was identified as a significant barrier to pedestrian movement. Land uses adjacent to the corridor include the McMenemy's St. Johns Pub, the post office, a super-block (two or more blocks combined form a larger 'super-block') of large retailers, as well as the core of the business district at the western end of the corridor. The location of these high frequency uses, combined with the designation of Ivanhoe as a state highway bypass, there is a concentration of heavy automobile and truck traffic. James John Elementary School is located two blocks to the north of this corridor necessitating daily student crossings, as all students living within 1 mile of the school typically walk.



East Ivanhoe Corridor

There are currently no traffic regulation or calming devices in place throughout this corridor, allowing vehicles to gain considerable speed. The problem of unsafe pedestrian connections is accentuated by the super-block on the south side of Ivanhoe, which encourages mid-block crossings and confuses pedestrians and motorists alike with the misalignment of driveways and old through-streets (John

III. PEDESTRIAN REALM

and Charleston). The super-block is also without handicap ramps, forcing disabled pedestrians to access the sidewalk via the existing driveways.

RECOMMENDATIONS

- *Narrow driveways on the Ivanhoe super-block and realign them to coincide with existing cross-streets (John and Charleston).*
- *Install flashing school-zone signage, to be activated during morning and afternoon hours only.*

Four intersections in this corridor were identified as problematic for pedestrians. The project team does not recommend improvements for two of them, Ivanhoe at Philadelphia and Ivanhoe and Leavitt. Pedestrian infrastructure at Ivanhoe and Philadelphia is adequate, however high volumes of truck traffic negatively impact pedestrian safety. Improvements are not recommended at this intersection because the rerouting of truck traffic is beyond the scope of this Study. Improvements are not recommended for Ivanhoe and Leavitt because of its proximity to proposed improvements at Ivanhoe and John.



Ivanhoe and Richmond

This intersection received the highest number of community complaints, as it has



Ivanhoe and Richmond

been configured to optimize vehicular movement. The St. Johns Pub, a local and regional draw, is located on the northwest corner of this intersection. It generates a large volume of pedestrian traffic arriving on foot directly from their residence, business, or parked automobile. Traffic moving east on Ivanhoe is allowed an unrestricted left turn onto Richmond, and traffic moving south on Richmond is allowed to make a right turn without stopping when turning onto Ivanhoe. Pedestrians

crossing at this intersection, especially at night and during peak traffic hours, are at risk as both automobile and truck traffic move south and eastbound quickly without stopping or yielding.

RECOMMENDATIONS

- *Install a four-way stop sign to slow and regulate the movement of vehicles through the intersection.* The close proximity of the traffic signal at Jersey and Richmond may present a queuing problem on Richmond, between Jersey and Ivanhoe. In order to mitigate this, the team recommends removing the signal at Jersey and Richmond. This will necessitate either a reroute of eastbound Jersey traffic directly to Lombard, or the replacement of the signal with a stop sign controlling the movement of eastbound Jersey traffic only. Based on the input received throughout the Study, traffic control at Richmond and Ivanhoe takes precedence over control at Jersey and Richmond.
- *Paint crosswalks connecting all four corners of the intersection, emphasizing the pedestrian right-of-way.*

III. PEDESTRIAN REALM

Ivanhoe and John

This intersection was not identified as



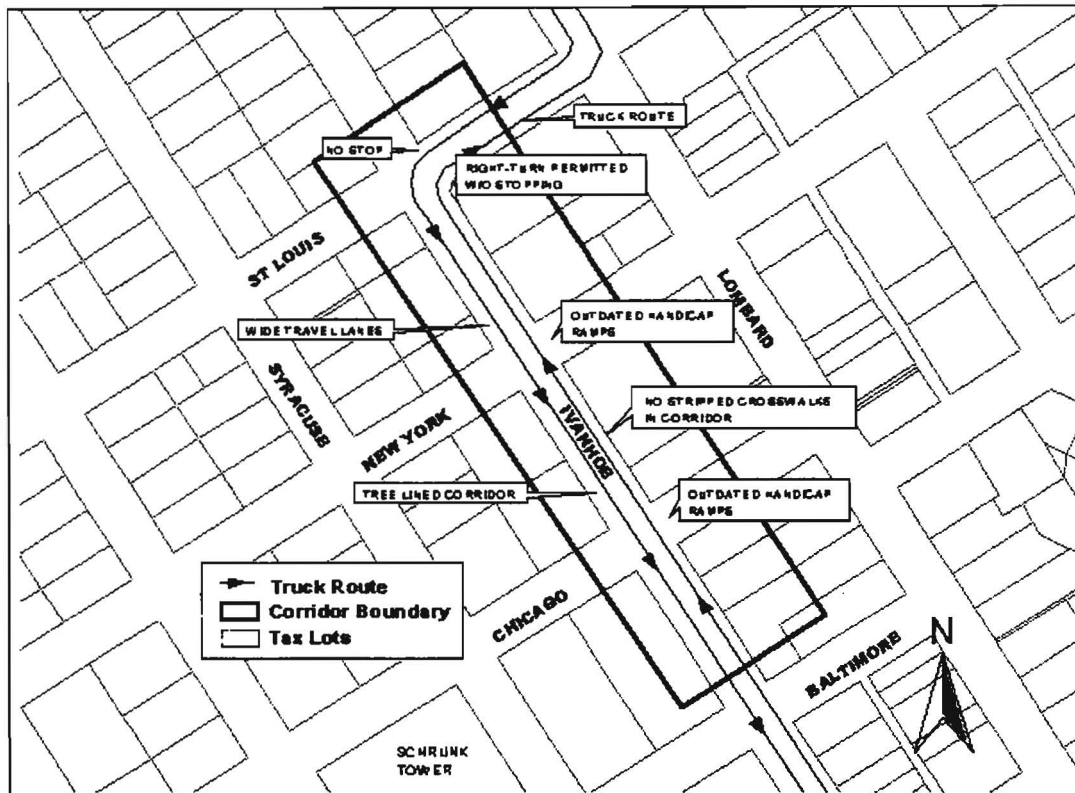
Ivanhoe and John

significantly problematic, but was determined to be the appropriate location for selected improvements. This is primarily because it is equidistant to the proposed traffic control change at Ivanhoe and Richmond and the existing control at Ivanhoe and Philadelphia. It also provides direct access to James John Elementary via an existing signalized crosswalk at Lombard and John.

RECOMMENDATIONS

- *Install a signalized mid-block pedestrian crosswalk for crossing at this intersection. The signal should be timed to accommodate all potential users, including the elderly and disabled.*
- *Install a north side curb extension with the signalized crosswalk in order to shorten the pedestrian crossing distance and calm through traffic. This is the only intersection in this corridor that curb extensions are recommended. This is due to the heavy amount of truck and auto traffic that uses this corridor. Traffic at adjoining cross streets, Leavitt and Charleston, would be unable to turn safely onto Ivanhoe if curb extensions were located on each of the corridor's intersections.*

THE WEST IVANHOE CORRIDOR: CHICAGO TO ST. LOUIS



Similar to the east Ivanhoe corridor, this corridor was also frequently identified as problematic by residents of both neighborhoods as well as the Committee. The Highway 30 truck route follows this corridor, which is characteristically a wide two-lane street. The corridor allows on-street parking, but the project team observed that motorists seldom utilize the on-street parking. The width and lack of traffic calming devices contributes to the speed with which traffic travels through this corridor. School children originating from the neighborhood southwest of this corridor often walk through the corridor.



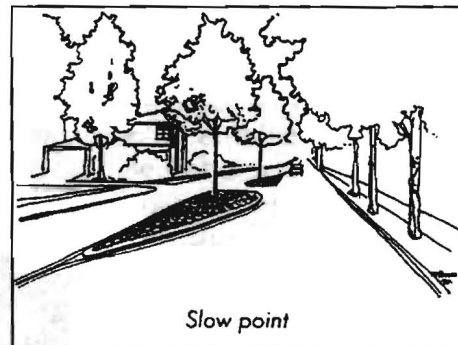
West Ivanhoe Corridor

III. PEDESTRIAN REALM

RECOMMENDATIONS

- *Install a landscaped slow-point or median treatment between New York and Baltimore, with a cutout at Chicago to allow autos to enter and exit Ivanhoe. The slow-point will help to slow traffic prior entering the turn at St. Louis and will keep traffic exiting the turn at slower speeds. The landscaping will provide visual quality and amenity to the area. Depending on the width of the slow-point, on-street parking in these two blocks may need to be removed.*
- *Install flashing school-zone signage, to be activated during morning and afternoon hours only.*

Two intersections in this corridor were identified as problematic for pedestrians, and the project team recommends improvements to both of them.



Ivanhoe and St. Louis

Similar to the intersection of Ivanhoe and Richmond, traffic is allowed to feed to and from St. Louis in an unregulated manner, endangering pedestrians crossing at, or near this intersection.



Ivanhoe and St. Louis

RECOMMENDATIONS

- *Install "No Pedestrian Crossing" signage.* The close proximity of a necessary traffic signal at Lombard and St. Louis eliminates the possibility of traffic control measures at this intersection. Optionally, the intersection may also have signage directing pedestrians to the existing signalized crossing at Lombard and St. Louis or the recommended crossing at Ivanhoe and New York.

III. PEDESTRIAN REALM

Ivanhoe and New York

Traffic approaching this intersection moves quickly and unregulated, especially when approaching from St. Louis. This poses obvious risks to pedestrians wishing to cross at this location. The nearest signalized crosswalk is located two blocks to the south of this intersection, at Ivanhoe and Baltimore.

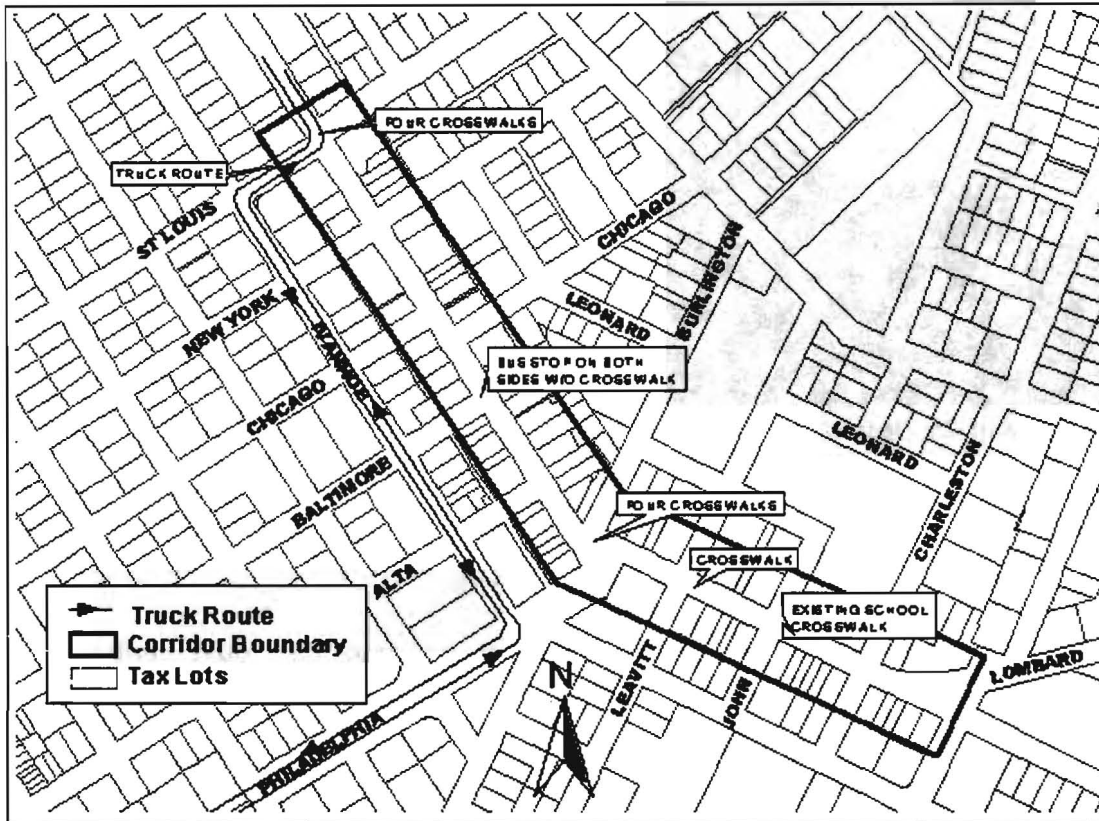


Ivanhoe and New York

RECOMMENDATIONS

- *Install a signalized pedestrian crosswalk (with push button operation) to provide a safe crossing for pedestrians.* This crosswalk would allow a safe crossing alternative for pedestrians wanting to cross at Ivanhoe and St. Louis. It would also slow traffic approaching from the Ivanhoe and St. Louis intersection.

THE LOMBARD CORRIDOR: RICHMOND TO ST. LOUIS



This corridor has a greater number of street furniture amenities than other study area corridors, a reflection of its 'main street' status. A large number of active commercial businesses front on Lombard, resulting in high volume of pedestrian circulation. The corridor's east end is generally considered safer for the pedestrian, due in large part to the presence of crosswalks on Lombard at John and Lombard and Leavitt and frequently used on-street parking. There are also four striped crosswalks on Lombard at Burlington and Lombard and Philadelphia. This corridor, as whole, was not identified as problematic during the Study. Despite this, three intersections were identified as problematic for pedestrians.

III. PEDESTRIAN REALM

Lombard and Charleston

The combination of an active business cluster, elementary school, and blind corner make this a particularly dangerous intersection. Traffic entering the study area from the east moves quickly with an obscured line of sight.



Lombard and Charleston

RECOMMENDATIONS

- *Install rumble strips to slow motorists entering the town center westbound on Lombard.*
- *Install street-level flashing pedestrian signage preceding this intersection, alerting westbound traffic on Lombard that they are entering a pedestrian district.*
- *Install a convex mirror on the adjacent island to allow pedestrians and motorists on Charleston to see approaching westbound traffic.*

Lombard and Burlington

This intersection is the geographic and symbolic center of the study area. The street configuration at this intersection is arranged so that westbound traffic is making a turn northward and eastbound traffic is turning southward. This complex configuration actually enhances the pedestrian realm by slowing the flow of traffic. This, coupled with two striped crosswalks and a traffic signal, make this a relatively safe intersection. It was mentioned consistently throughout the Study as unsafe, however, and deserves added attention because of its central location.



Lombard and Burlington

Cars stopped behind buses loading and unloading often attempt to pass, sometimes encountering a red light or crossing pedestrian. Removing buses from the flow of traffic would allow better visibility for pedestrians and motorists and ease traffic movement.

RECOMMENDATIONS

- *Create a curb cutout for buses stopping at the transit plaza.*

III. PEDESTRIAN REALM

Lombard and St. Louis

This intersection serves as another gateway for the study area, as pedestrians, bicyclists, buses, and trucks coming from the northwest enter at this intersection. It is currently configured to maximize automobile traffic, although poorly, as the intersection carries a significantly higher accident rate than all other intersections in the study area with 39 accidents in a 36-month period. There were also more pedestrian/bicycle and auto accidents at this intersection than any other intersection in the study area.

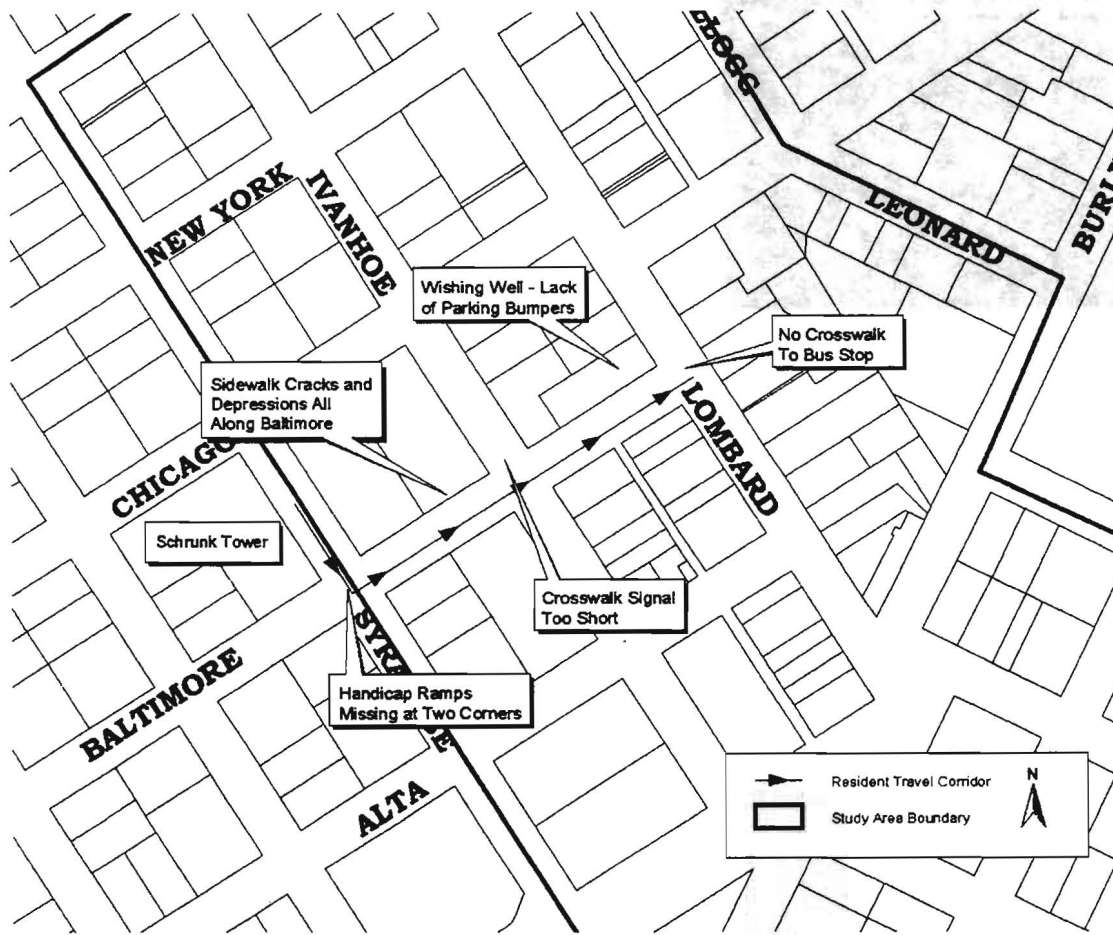


Lombard and St. Louis

RECOMMENDATIONS

- *Eliminate unnecessary signs and utility poles.* This would create less visual clutter for motorists and allow pedestrians and cyclists to be seen more clearly.

THE BALTIMORE CORRIDOR (SCHRUNK CORRIDOR): SYRACUSE TO LOMBARD



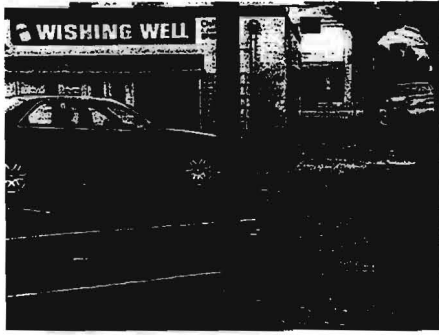
The Baltimore Corridor is a major concern to the elderly and disabled residents of Shrunk Tower as well as other pedestrians accessing the town center via Baltimore. The corridor provides direct access to bus lines stopping at the intersection of Lombard and Baltimore, as well as a direct route to a number of important town center businesses. The general pedestrian infrastructure in this corridor is poor; cracked and broken sidewalks are prevalent and there are missing handicap ramps at the intersection of Syracuse and Baltimore. The signalized crosswalk at Ivanhoe and Baltimore is currently too short to allow safe passage of slower pedestrians. The Wishing Well (a restaurant/bar located on the southwest corner of Lombard and Baltimore) lacks wheel stops in its parking fronting the Baltimore sidewalk. Many times patrons park beyond the space and encroach upon the sidewalk, blocking the pedestrian right-of-way.



Baltimore and Lombard

III. PEDESTRIAN REALM

One additional intersection, Lombard and Baltimore, was identified as problematic in this corridor. This intersection is crucial, as transit users rely heavily on bus stops located on the north and south sides of Lombard. These stops are the second most frequently used in the town center. Transit users are often prompted into an unsafe crossing situation as east-west traffic moves unregulated through this intersection.



No wheel stops on parking spaces.

RECOMMENDATIONS

- *Install a four-way stop at Syracuse and Baltimore to allow for ease of pedestrian crossing.*
- *Stripe crosswalks connecting all four corners at Syracuse and Baltimore, emphasizing the pedestrian right-of-way.*
- *Lengthen the timing of the north/southbound crossing signal at Baltimore and Ivanhoe to accommodate elderly and disabled pedestrians.*
- *Per the Portland Pedestrian Design Guide, install wheel stops in the parking spaces fronting Baltimore, behind the Wishing Well restaurant/bar.*
- *Install a signalized pedestrian crosswalk at the intersection of Lombard and Baltimore to allow transit users and others safe access across this portion of Lombard.*
- *Install curb extensions to coincide with the signalized crossing, shortening the pedestrian crossing distance and calming traffic on this portion of Lombard.*

IV. MULTI-MODAL ACCESS

This section discusses access to and from the town center in terms of transit use, bicycling, and on-street parking. Each assessment employs a different methodology and relies on the same data collection methods used to evaluate the pedestrian realm.

Though transit and bicycle are important means of accessing the town center, special emphasis was given to the on-street parking assessment. Due to project time constraints, less attention was given to the areas of bicycle and transit access. The Study does address some needs of transit users and cyclists, particularly satisfaction with existing transit service and suggestions for specific improvements for bicycle infrastructure. The project team recommends that further studies be conducted regarding access to the town center with respect to bicycling and transit use.

TRANSIT ACCESS

The assessment of transit access to the town center began with the collection of existing data on ridership and bus stop usage, with the street furniture inventory identifying bus stop locations. During the intercept survey, town center users were asked about their satisfaction with public transportation to and from the town center.

Six bus routes currently serve the St. Johns and Cathedral Park neighborhoods, with four of them providing access to the town center. According to the mode split targets project report published by the Portland Department of Transportation (and based on Tri-Met forecasts), future service will cut the six routes to four, but increase the frequency of service for the remaining four routes. Table 1 compares the current service levels with those projected in the *Metro 2020 Regional Transportation Plan* (RTP).

Of the four bus lines that provide service to the town center, most access the district via Lombard Street. None of the bus routes use any of the stops located in the study area for layover purposes. While the Lombard and Burlington stop is the most clearly defined stop in the district, all routes use the Burlington and Kellogg intersection (adjacent to Safeway) for their layovers.



Lombard and Burlington
Truck passing a stopped bus.

The intercept survey found that most transit users are satisfied with existing transit services. When questioned about general satisfaction with transit service, survey respondents responded positively overall; although, some had suggestions for specific improvements. Increased frequency of service was the highest rated improvement requested.

IV. MULTI-MODAL ACCESS

Table 1. Transit Service

ROUTE	DESCRIPTION	1994 PEAK HEADWAYS*	2020 PEAK HEADWAYS*	1994 OFF-PEAK HEADWAYS*	2020 OFF-PEAK HEADWAYS*
4 Fessenden	Replaced in 2020 by line 74	12	N/A	15	N/A
6 MLK/ Lombard	Regional frequent bus	10	3	15	8
16 Front Ave/ St. Johns	Replaced in 2020 by line 17 reroute	30	N/A	No Service	N/A
17 NW 21 st / St. Helens Rd	Primary bus service extended to Riverplace	30	6	60	15
40 Mocks Crest	Replaced in 2020	30	N/A	30	N/A
74 Fessenden/ Lloyd/ Milwaukie	New line primary bus St. Johns to Rose Quarter TC	N/A	8	N/A	12
75 39 th /Mocks Crest	Primary bus	15	6	15	10

**All headways are measured in minutes*

Source: 2040 Centers Transportation Strategies and Mode Split Targets Project Final Report, Portland Department of Transportation.

The most frequently used bus stops in the study area are at the intersections of Lombard at Burlington and Lombard and Baltimore. Lombard and Burlington is the most frequently used bus stop in the study area, with 843 on and offs reported for the average weekend-day. At Lombard and Baltimore, 377 on and offs were reported. This intersection has stops on both sides of Lombard, one for inbound trips and one for outbound (both in and outbound numbers were combined to yield the total listed above).

RECOMMENDATIONS

- *Increase the frequency of existing bus routes, as proposed by PDOT's 2040 Centers Transportation Strategies and Mode Split Targets Project.*
- *Create a curb cutout for buses stopping at the transit plaza (Lombard and Burlington). This recommendation is also listed under the Lombard/Burlington intersection improvements, because it benefits the pedestrian environment and traffic circulation as well as the safety and ease of use for transit riders. Removing buses from the flow of traffic would allow for better visibility for the pedestrian and motorist, the layover of buses, and better traffic movement.*

BICYCLE ACCESS

Due to traffic congestion and narrow travel lanes few residents access the town center via bicycle. Few east/west streets, such as Lombard or Ivanhoe, provide a safe bike route through the town center. Travel lanes along Lombard are especially narrow and require an alert cyclist to avoid opening car doors. Heavy truck traffic along Ivanhoe deters most cyclists from using that east/west route.

One key informant revealed that the town center is not necessarily a destination point for cyclists, but merely a stopping over point on the way in or out of town. One 20-year veteran of bicycle commuting simply avoids the town center on his way to work. He frequently uses a route north of the town center, weaving his way through residential neighborhoods avoiding the central business district and meets back up with the lower portion of Lombard southeast of the town center. A Committee member, who commutes by bicycle to work in the Lloyd District, opts for a southern route along Willamette Boulevard, which does have bike lane improvements.



Bicyclists Typically Avoid the Town Center

Twenty-two percent of intercept survey respondents acknowledged riding their bicycles to and from the town center. An increased number of cyclists during fair weather may account for this high percentage. Off-street bikeways and bike lanes were the most frequently chosen bike infrastructure improvement.

There are 0.4 bike racks per intersection in the study area, which translates to roughly one bike rack at every other intersection.

RECOMMENDATIONS

- *A east/west bike route should be created adjacent to the town center, preferably along streets with lower traffic volumes.*
- *Conduct more in-depth studies regarding the bikeway system in and around the St. Johns Town Center.*

IV. MULTI-MODAL ACCESS

PARKING INVENTORY AND ASSESSMENT

While conducting initial inquiries into the town center community, it became apparent to the project team that there is a perceived lack of parking within the town center. Many business owners are concerned that patrons are unable to find parking spaces near their businesses. Intercept survey respondents also indicated concern over lack of parking in the town center. This concern has prompted a proposal for a shared parking structure, funded partially by town center businesses. Such a structure would allow town center patrons and employees to park in a centralized and sheltered location. Although the Study does not evaluate the feasibility of such a lot, it does recognize that on-street parking is an important and frequently used form of town center access. Thirty-nine percent of intercept survey respondents reported driving to the town center.



On-Street Parking near Ivanhoe and Richmond

In order to respond to the community's perceived parking problem and desire to acquire a shared parking lot, the project team conducted a full-scale parking analysis that would determine the efficiency and availability of on-street parking.

To accomplish this, the project team conducted a formal on-street parking inventory and assessment including hourly counts to evaluate length of stay and occupancy rates. A general assessment alone would not reveal the presence or lack of a parking shortage. Therefore, it was necessary to conduct an in-depth assessment from which specific recommendations could be made for improving the system, if a shortage was revealed. All aspects of the inventory and assessment were conducted in accordance with National Parking Association (NPA) standards. The assessment also adheres to the suggested guidelines set forth by the International Municipal Parking Congress (IMPC), an organization responsible for setting standards for public parking and the policies included therein.

The assessment that follows is broken into two sections: System-Wide and Nodal.

SYSTEM-WIDE ASSESSMENT

The system-wide assessment identifies peak hour use and average vehicle duration (length of stay for each parking space). A detailed description of the on-street parking assessment methodology can be found in Appendix 2. For an area to provide efficient parking for its employees and customers, it is necessary to have a certain turnover rate. In most cases this translates to having a minimum of 15 percent of the system's spaces available for parking, or having no more than 85 percent of all spaces occupied during the system's peak hour.

The system-wide parking assessment revealed that the St. Johns Town Center has an abundance of available on-street parking during peak hours. The results from the assessment show that even at peak hours, for weekdays or weekends, the system only reaches 50 percent of available capacity. Until occupancy rates

approach the 85 percent capacity level, there is not enough demand to warrant increasing the system's planned capacity. The percent occupancy reported in Table 2 is a reflection of the total number of parking spaces occupied during the peak hour.

Peak hour for the study area was between 12:00 noon and 1:00 p.m. for both weekdays and weekends, with occupancy at 48.4 and 42.8 percent, respectively. At this occupancy, the town center is capable of accommodating an additional 176 vehicles, during the peak hour, before the system reaches capacity (85 percent occupancy).

In order to evaluate whether or not the parking system was operating efficiently, the project team compared current operating capacity with the system's planned or design capacity. Planned capacity shows the total number of vehicle trips possible if all spaces are utilized at their posted maximum time limits. In other words, a 2-hour space over a ten hour period would generate five trips. If customers stay less than the full 2-hour period, allowing for more trips than the design capacity indicates, the system is said to be operating efficiently. The difference in planned capacity figures is a reflection of the length of the survey periods, nine hours on Tuesday and ten hours on Saturday. Results of the assessment show, on average, all 2-hour spaces appear to be working effectively. Additionally, data from both days show that the 2-hour system is operating above planned capacity; customers are making more trips to and from their destinations than the system's design capacity.

Motorists are parking for an average of an hour and 24 minutes in 1-hour zones both on weekdays and weekends. On weekdays, motorists are parking an average of one hour and 54 minutes in 2-hour zones, and one hour and 42 minutes on weekends. While the 2-hour spaces are operating effectively, the 1-hour and 30 minute spaces are not. Table 2 shows that motorists parking in both the 1-hour and 30 minute spaces are in violation of their time restrictions.

IV. MULTI-MODAL ACCESS

Table 2. System-Wide Assessment

TUESDAY PARKING RESULTS (WEEKDAY)				
System-Wide Results				
Total number of spaces available	Peak Hour	Percentage Occupancy	Number of vehicles short of capacity	
481	12-1 p.m.	48.4%	176	
Categorical Analysis				
Time Restriction Category	30 Minute	1-hour	2-hour	Unmarked
Number of Spaces	10	124	54	288
Average Duration	1.3*	1.4	1.9	4.5
Operating Capacity**	69 trips	797 trips	256 trips	N/A
Planned Capacity**	180 trips	1116 trips	243 trips	N/A
SATURDAY PARKING RESULTS (WEEKEND)				
System-Wide Results				
Total number of spaces available	Peak Hour	Percentage Occupancy	Number of vehicles short of capacity	
481	12-1 p.m.	42.8%	203	
Categorical Analysis				
Time Restriction Category	30 Minute	1-hour	2-hour	Unmarked
Number of Spaces	10	124	54	288
Average Duration	1.2	1.4	1.7	4.2
Operating Capacity***	83 trips	886 trips	318 trips	N/A
Planned Capacity***	200 trips	1240 trips	270 trips	N/A

*All figures are measured in tenths of an hour (examples: 1.1-hours=1-hour 6 minutes, 1.7 hours=1-hour 42 minutes)

**Survey conducted over a 9 hour period

***Survey conducted over a 10 hour period

RECOMMENDATIONS

- *Standardize all posted time restrictions for on-street parking to 2-hour time limits, excluding the ten 30-minute spaces. This would effectively lower system-wide planned capacity numbers and bring current users into compliance with posted time limits.*
- *Selectively change existing unmarked spaces to 2-hour spaces depending on their location in relation to activity nodes in the town center. The existing unmarked spaces have an average duration between 4.2 and 4.5 hours. Changing them to 2-hour zones effectively doubles capacity of all 288 unmarked spaces, which is an increase of approximately 576 trips to the town center.*

IV. MULTI-MODAL ACCESS

NODAL ASSESSMENT

The second half of the on-street parking inventory and assessment analyzes individual intersections and corridors. Simply looking at the figures from the entire study area's parking system can be somewhat misleading. For example, if parking is available at Ivanhoe and John Streets, it is not going to directly benefit those wanting to park at Lombard and New York. The town center has different areas of sparse and intense parking use; the nodal assessment attempts to identify and separate those areas.

All guidelines for the system-wide parking assessment apply to the nodal assessment with some additions. A detailed explanation of the methodology used for the nodal assessment can be found in Appendix 2. The aggregated data was separated according to intersection or *node*. The nodal assessment data is shown in Table 3.

Separating the parking data according to intersection revealed a different situation than presented by the system as a whole. The system-wide assessment had occupancy rates at a high of 50 percent, whereas some individual nodes approach their efficient operating capacity (85 percent occupancy). On weekdays, Lombard at both New York and Burlington are almost at full capacity between 12:00 p.m. and 2:00 p.m. (82.9 percent occupancy). On weekends, Lombard at Alta (83.3 percent), Burlington (79.2 percent), and Leavitt (78.9 percent) all have high occupancy rates in the early afternoon.

In all nodes, motorists using 1-hour parking spaces are violating the posted time restrictions. The results indicate that the average town center patron requires more than one hour, but less than two hours, to accomplish their errands. With the exception of the intersection at Lombard and New York, all vehicles parked in 2-hour zones adhered to the posted time restrictions. Since there are no posted times for unmarked spaces, vehicle owners can park all day without fear of being ticketed. Therefore, it is evident that those who require longer than a two hour stay seek out unmarked spaces.

The findings of the nodal assessment reveal that business owner and patron parking concerns are not unfounded. Between 12:00 p.m. and 3 p.m., specific areas of the town center experience high volumes of parked cars. This does not indicate a parking shortage; however, it does reveal that people seeking parking spaces on or near Lombard between Alta and Leavitt Streets may have a more difficult time finding a space. Several spaces are consistently available one block to the south along Ivanhoe or to the north along Kellogg.

Table 3. Nodal On-Street Parking Space Assessment – Individual Analysis by Major Intersection

	TUESDAY ASSESMENT									SATURDAY ASSESSMENT								
Node	Peak Hour	% Occup	Avg. Dur.	1-hr Dur.	# of 1-hr Spaces	2-hr Dur.	# of 2-hr Spaces	Unmrk. Dur.	# Unmrk. Spaces	Peak Hour	% Occup	Avg. Dur.	1-hr Dur.	# of 1-hr Spaces	2-hr Dur.	# of 2-hr Spaces	Unmrk. Dur.	# Unmrk. Spaces
New York/ Lombard	1-2	82.9%	3.0	1.2	16	8.5	5	5.0	24	10-11 1-2*	60.9%	2.8	1.3	16	5.8	5	5.7	22
Baltimore/ Lombard	12-1	58.1%	1.6	1.4	23	N/A	0	9.0	8	12-1	73.3%	1.7	1.5	23	N/A	0	3.4	8
Alta/Lomard	4-5	65.5%	1.6	1.5	21	1.7	6	N/A	0	2-3	83.3%	1.5	1.5	21	1.5	6	N/A	0
Burlington/ Lombard	12-1	78.9%	1.4	1.4	16	1.1	2	2.8	5	11-12 1-3*	79.2%	1.6	1.5	16	1.4	2	3.4	5
Leavitt/ Lombard	12-2*	62.2%	1.3	1.3	31	1.4	11	N/A	0	2-3	78.9%	1.4	1.4	31	1.3	11	N/A	0
John/ Lombard	10-11	57.7%	1.8	1.2	23	1.3	5	3.9	23	12-1 2-3*	63.5%	1.4	1.2	23	1.2	5	2.1	23
Charleston/ Lombard	10-11	65.8%	2.3	1.3	6	1.6	13	5.3	16	11-2*	47.4%	1.6	1.0	6	1.6	13	2.9	16
John/ Ivanhoe	3-5*	36.1%	1.8	1.4	8	1.3	5	2.5	22	2-3	37.8%	1.6	.51	8	1.2	5	3.4	23
Charleston/ Ivanhoe	11-12	50.0%	1.6	N/A	0	1.4	9	1.8	25	5-6	53.8%	1.7	N/A	0	1.5	9	2.0	26
Lombard Only	12-1	70.1%	1.4	1.4	67	N/A	0	1.0	5	11-12	72.7%	1.4	1.3	67	N/A	0	1.5	5

*Two or more hours during the assessment period had the same percentage occupancy (peak hours)

RECOMMENDATIONS

- *Change all unmarked spaces on Lombard, (including parallel streets Kellogg and Ivanhoe) between Baltimore and Leavitt Streets, to 2-hour spaces. This will decrease the average duration for unmarked spaces and increase the turnover rate allowing a great number of trips to the town center.*
- *Change all on-street parking spaces facing Lombard to 1-hour spaces. This would create a greater parking turnover in the town center's busiest areas, allowing more customers to access commercial businesses along Lombard.*

V. CONCLUSIONS

The St. Johns Town Center is truly a special place in Portland. It serves the most basic needs of its varied patron base, providing common ground and a source of pride for the residents of a community in transition. The project team recognizes that the town center, as it exists today, is a *good* place to be a pedestrian. The same public outreach process that informed and reinforced that assertion also revealed that the town center is not a *great* place to be a pedestrian. The core intent of this Study was to determine what improvements to the pedestrian realm are necessary in order to elevate the town center to the level of a great pedestrian place. The presented recommendations are the impetus for accomplishing that change.

A less tangible, but equally important result of this Study's planning process is the discovery of a town center community that is capable of building consensus around issues that impact their quality of life. The members of this community, despite an often-justified reputation for political infighting and mistrust towards Portland's central government, are remarkably unified in their desire for positive change in the town center. The Study's findings are illustrative of this, as none of them represent the opinions of any single individual, but rather common themes, desires, and needs that emerged from the public outreach process.

This Study's process was designed to allow the town center community to ultimately take ownership of its methods, findings, and recommendations. Much of this information was borne directly from their input and that which was not (i.e. the on-street parking assessment), was collected because they identified it as important during the scoping of the Study. Community ownership of this report is the only way to ensure that it will not be forgotten when the City of Portland rises to the challenge of transforming the St. Johns Town Center into a great place for pedestrians.

APPENDIX 1: INTERCEPT SURVEY

Intercept Survey

Hi! I am a Portland State Graduate Student and we are doing a study on Pedestrian Safety in the St. Johns town center. Would you be willing to take a five minute survey regarding pedestrian issues? Great!!

1) What are you doing in the St. Johns town center today?

- ☐ 1 Shopping
☐ 2 Meeting friends
☐ 3 Eating at a restaurant
☐ 4 Passing through
☐ 5 Going to a local bar/pub
☐ 6 Work
☐ 7 Other

2) What zip code did you live in? _____

3) What age bracket do you belong in?

- ☐ 1 17 and under ☐ 2 18-34 ☐ 3 35-64 ☐ 4 65 and older

4) Gender: ☐ 1 Male ☐ 2 Female

5) How did you get to the Town Center?

- ☐ 1 Automobile ☐ 2 Bus ☐ 3 Walk ☐ 4 Bike ☐ 5

Other _____

6) How often do you come to the Town Center?

- ☐ 1 Daily ☐ 2 Weekly ☐ 3 Monthly ☐ 4 Rarely
☐ 5 Other _____

7) From a scale of 1 being the safest to 5 being very unsafe, how safe do you feel walking around the town center in the daytime? (Circle One)

Very Safe 1 2 3 4 5 Very Unsafe

8) From a scale of 1 being the safest to 5 being very unsafe, how safe do you feel walking around the town center at night? (Circle One)

Very Safe 1 2 3 4 5 Very Unsafe

- 9) Do you think the Town Center needs any of the following? Please choose two.
- ___ 1 Litter pick up ___ 3 Better lighting ___ 5 Improved sidewalks
___ 2 More crosswalks ___ 4 Handicapped ramps on curbs
- 10) Do you think any of the following should be considered for the Town Center? If so, choose two.
- ___ 1 More traffic signals ___ 3 Lower speed limits ___ 5 Speed bumps
___ 2 Police foot patrol ___ 4 More parking
- 11) Do you ride the bus to and from the town center regularly? ☐ 1 Yes (if 'Yes', go to question 13) ☐ 2 No
- 12) Why don't you ride the bus? _____ **(end of survey)**
- 13) Are you satisfied with transit service to and from the town center? ☐ 1 Yes
☐ 2 No
- 14) Please choose two of the following suggestions as ideas for improving transit service:
- ___ 1 Increased frequency ___ 3 Greater destination choices
___ 2 Lower cost ___ 4 Different Times of Service ___ 5

Safety improvements

- 15) Do you ride your bike in the Town Center? ☐ **1 Yes** ☐ **2 No**
- 16) If yes, do you think the town center needs any of the following bike improvements? Choose two.
- ☐ **1 Bike Lanes** ☐ **2 More Bike Parking** ☐ **3 Covered Bike Parking/Lockers**
- ☐ **4 Removal of on-street Parking** ☐ **5 Off-street Bike Ways**
- ☐ **6 Better Bike Route Signs**
- 17) Do you have any other comments about pedestrian safety in the town center?

APPENDIX 1: INTERCEPT SURVEY

INTERCEPT SURVEY FINDINGS

The project team conducted 100 intercept surveys in the town center to explore issues of pedestrian safety, public transit service satisfaction, and bicycle use and satisfaction. Twenty-five of those were done on a weekday morning (9 AM – Noon), twenty-five during a weekday afternoon (Noon – 5 PM), twenty-five during a weekend morning, and the rest during a weekend afternoon. This captured people who were accessing the town center for different reasons depending on the day of the week and the time of day. The survey was administered orally to people walking in the town center. It took team members approximately five minutes to administer each survey.

DEMOGRAPHICS AND USAGE

Table 4. Respondent Age Distribution

AGE	SURVEY RESPONDENTS	ST. JOHNS AND CATHEDRAL PARK 1996**
17 Years and Under	5%	25%
18 – 34 Years	33%	22%
35 – 64 Years	50%	39%
65 Years and Over	12%	14%

* The Less Than 5 Years and 5- 17 Years were combined in this section.

**Source: 1996 American Community Survey, U.S. Census Bureau

Table 5. Residence

	PERCENT
St. John Resident	79%
Oregon Resident	19%
Out of State	2%

Table 6. Mode to Town Center

MODE	PERCENT
Auto	39%
Bus	23%
Walk	37%
Other	1%

Table 7. Frequency of Travel to Town Center

FREQUENCY	PERCENT
Daily	56%
Weekly	28%
Monthly	10%
Rarely	6%

SAFETY

The next section of the survey dealt with safety in the town center. Each respondent was asked how safe they feel during the day and at night.

Table 8. Respondent Safety Perceptions by Gender

DAYTIME SAFETY**					
GENDER	1 (Very Safe)	2	3	4	5 (Unsafe)
Male	47%	29%	16%	6%	0
Female	45%	25%	10%	20%	0
Totals	46%	27%	13%	13%	0
NIGHTTIME SAFETY***					
GENDER	1 (Very Safe)	2	3	4	5 (Unsafe)
Male	22%	22%	33%	12%	6%
Female	12%	6%	35%	25%	16%
Totals	17%	14%	34%	18%	11%

**Based on 99 responses.

***Based on 94 responses.

While the perception of safety drops at night, most of the respondents do not feel unsafe. Women are more likely to feel unsafe at night than men. The more often a person visits the town center, the safer they feel in general. In general, the younger the age of the respondent resulted in a greater perception of safety in the town center during both day and night.

Table 9. Respondent Safety Perceptions by Age

DAYTIME SAFETY					
AGE	1 (Very Safe)	2	3	4	5 (Unsafe)
17 & Under	40%	60%	0	0	0
18 – 34	55%	21%	15%	9%	0
35 – 64*	40%	34%	12%	12%	0
65 & Older*	46%	27%	13%	13%	0
NIGHTTIME SAFETY					
AGE	1 (Very Safe)	2	3	4	5 (Unsafe)
17 & Under	20%	20%	40%	20%	0
18 – 34*	15%	18%	36%	12%	9%
35 – 64*	16%	14%	30%	24%	10%
65 & Older	17%	14%	34%	18%	11%

*Indicates that there were fewer than 100 responses.

TOWN CENTER NEEDS AND IMPROVEMENTS

In the survey, four questions asked respondents to choose two items from a list of improvements. These questions addressed town center needs and improvements and needs to public transit and bicycle infrastructure. In some instances a respondent chose one or none of the choices if they had no opinion or felt that the town center was operating efficiently. The number of responses is noted for each result.

Table 10. Town Center Needs

TOWN CENTER NEEDS	TOTAL RESPONSES
Litter Pick-Up	50
Better Lighting	39
More Crosswalks	32
Improved Sidewalks	25
Handicap Ramps at Intersections	14

Table 11. Town Center Improvements

RESPONSES	TOTAL RESPONSES
Police Foot Patrol	35
More Parking	27
Lower Speed Limits	22
Speed Bumps	12

**Derived by dividing the frequency by the total number of received answers.*

Public Transit Improvements

Public transit users made-up a large portion, 60 percent, of the total respondents. These people identified themselves as riding the bus on a regular basis to and from the town center. They were asked how transit service to the town center could be improved. Increased frequency was the most common answer.

Bicycle Infrastructure Improvements

Twenty-two percent of the respondents ride bicycles to and from the town center. These persons were asked how the bicycle infrastructure could be improved in and around the town center. Bike lanes and off-street bikeways were the most frequently chosen bike infrastructure improvements.

APPENDIX 2: ON-STREET PARKING ASSESSMENT

SYSTEM-WIDE PARKING METHODOLOGY

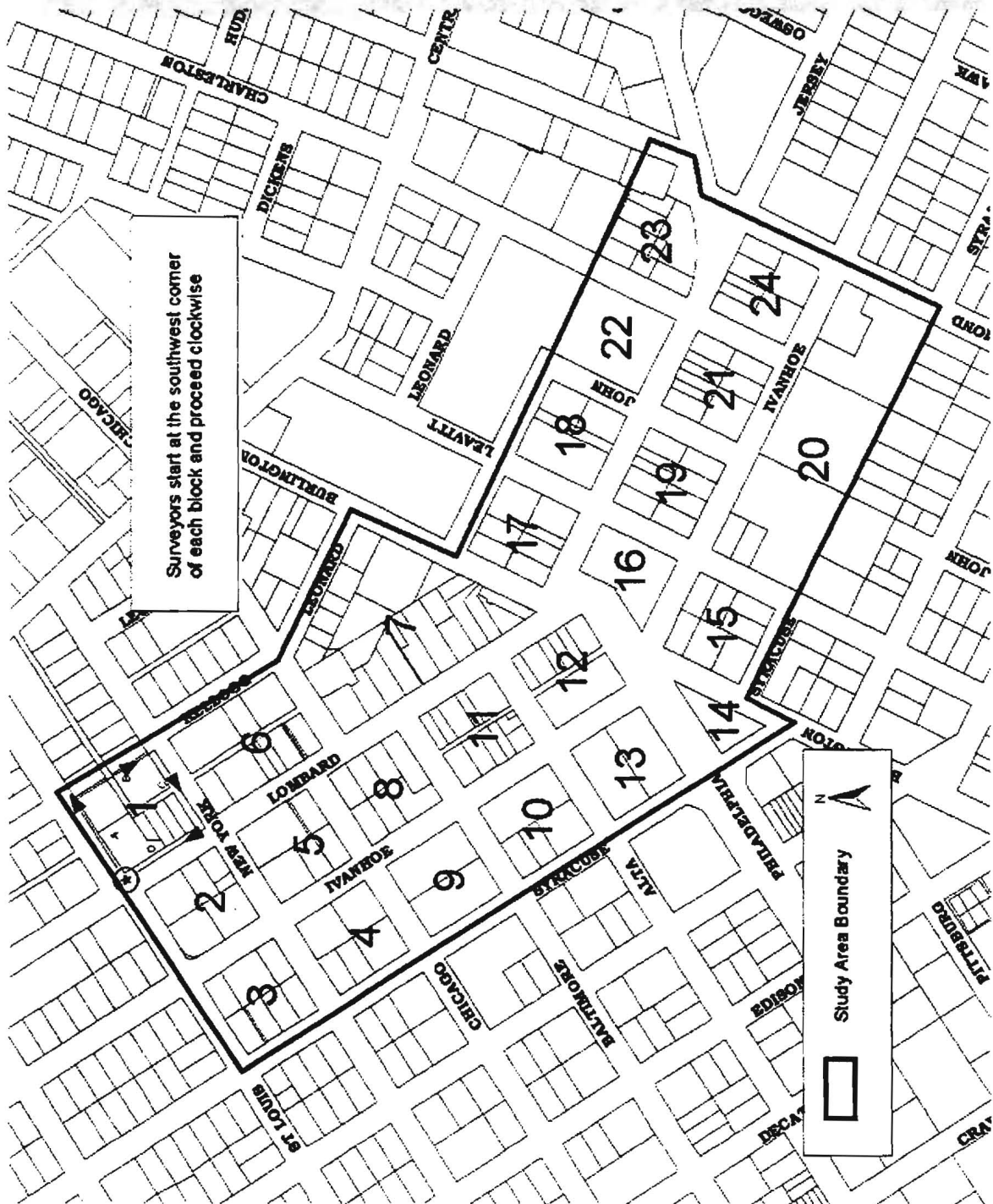
All inventories are to be conducted on a Tuesday, Wednesday, or Thursday. Mondays and Fridays should be avoided due to altered commute schedules, compressed workweeks, employees taking three-day weekends, etc. Time of year is also a consideration; parking studies should not be conducted near the winter holiday season because of artificially inflated demand for parking spaces. Parking studies should be conducted over the course of an entire workday, generally beginning an hour before the workday begins (7 a.m.) and ending an hour after the workday has ended (6 p.m.). Conducting the inventory each hour throughout the day allows the surveyor to easily identify the peak hour and the time of day when the most number of vehicles are occupying spaces.

A comprehensive parking study identifies peak hour use, occupancy rate, and length of stay. To do this it is necessary to count the number of vehicles hourly and record each license plate number. This process identifies an otherwise generic occupied space with a unique vehicle, and allows the surveyor to track the length of stay for each vehicle. When evaluating a parking district, capacity is reached when 85 percent of the available spaces are occupied. This is based on the notion that people will spend time searching for a parking space closest to their destination and will only opt for a more distant space when no others are available. It also takes into consideration a continual turnover rate.

Local Application

The first step taken in preparing for the town center parking study was to take precise inventory of the number of parking spaces available within the 24-block study area. Each block was numbered 1 through 24, each side of the block was labeled 'A' through 'D' and a corresponding number of available spaces was listed for each side of the block.

Occupancy for each individual parking space was also recorded (an example of a survey sheet can be found at the end of this Appendix). Not all spaces were defined by street paint or posted time limits, therefore the project team made estimates for unmarked spaces along residential and periphery streets. The project team used 18 feet as the standard length needed to park a vehicle parallel to the curb. These spaces are indicated as *unmarked* under the 'time restriction' category on the survey template.



For the purposes of this Study, the first parking assessment was conducted on Tuesday, January 25th, 2000. Initially, the project team was to begin this assessment at 7:00 a.m.. However, after consultation with the Advisory Committee, it was decided that 9:00 a.m. would be a more appropriate start time because most town center businesses open their doors at that time. The Tuesday assessment concluded at 6:00 p.m..

A second parking assessment was conducted on Saturday, January 29th, 2000 based on the recommendation of the Advisory Committee. This second assessment was done to evaluate the perceived heavy weekend use of the town center. This assessment began at 9:00 a.m. and concluded at 7:00 p.m..

Curbside parking along Ivanhoe is not prohibited except in specific locations, yet vehicles rarely parked there. In total, 35 spaces were eliminated, from the inventory, along Ivanhoe between St. Louis and Baltimore Streets. In addition, eight 10-minute parking spaces located in front of the Bahai Center between Alta and Baltimore Streets were omitted from the final count. Parking spaces with 10-minute designations primarily serve as loading and unloading zones and are not suited for any practical consumer/visitor use.

NODAL ASSESSMENT PARKING METHODOLOGY

All rules listed above for the system-wide assessment apply to the nodal assessment with the following additions. Using the numbers collected for the weekday and weekend system-wide assessment the data was separated according to intersection. For example, looking at the Lombard and Chicago node (intersection) data was compiled from block 4 using block faces B and C, block 5 using block faces C and D, block 8 with faces A and D, and block 9 with faces A and B. These numbers were combined to identify the peak hour and the corresponding occupancy rate. Then the parking spaces were further separated according to time restrictions. This allows the project team to identify durations for 1-hour, 2-hour, and unmarked spaces. The last node is not an intersection, but a corridor along Lombard running the length of the study area. The aggregated data used for this assessment comes only from the block faces that front along Lombard, no side streets were included in the corridor calculation.

APPENDIX 2: MULTI-MODAL ACCESS

Block #	Block Face	Space #	Time Restriction	1pm-2pm	2pm-3pm	3pm-4pm	4pm-5pm	5pm-6pm	6pm-7pm	# of unique vehicles	Total vehicle hours
16	A	-								0	0
	B	1	1 hr	106R	109Q	234U	140X	1010A*	1010A*	7	8
		2	1 hr	857K		895X				2	2
		3	1 hr	772Q	458Q	713S	713S			4	7
	C	4	1 hr	299S	299S			701X	701X	4	6
		5	1 hr	2182	2182	2182	2182			1	8
		6	1 hr	395C	503X		552W			6	6
	D	-								-	-
17	A	1	1 hr	764D	764D	764D	764D	764D	764D	1	10
		2	1 hr	445V						2	4
		3	1 hr			264A	017U	017U		5	7
		4	1 hr	219R	219R		302B	259X	723I	7	8
		5	2 hr	546S	546S		604A		940T	5	6
		6	2 hr	481Q	216A	416F	416F			6	7
	B	7	unmarked		282W			029V		2	3
		8	unmarked	023V	023V	023V	023V			1	8
		9	unmarked							2	2
		10	unmarked			243W				1	1
		11	unmarked	306T	306T	306T	306T			2	8
		12	unmarked							0	0
	C	13	2 hr	288V	288V	790S	368R			3	4
		14	2 hr		906W	906W				3	4
		15	2 hr		888V	888V	888V			2	4
		16	1 hr	394R						2	3
		17	1 hr	031J*	026D		079S	079S	079S	4	6
		18	1 hr	412J*	409A	815W	653E	318W		6	7
		19	1 hr	AhhYes	AhhYes	AhhYes	AhhYes	AhhYes		3	9
	D	20	1 hr	976A	905S	975P	906W		667S	9	9
		21	1 hr	KeeKat	702X	707U				4	6
		22	1 hr				Pickle	Pickle		3	5
		23	1 hr	752K*	982S	723A	2179	017W		7	7
18	A	1	1 hr	805N	805N	LPOG	362A	362A	171S	5	8
		2	1 hr	712F	712F	041W	764S	956R		4	7
		3	1 hr				712F	712F		2	3
		4	1 hr	225E	225E	670C*	176U			3	4
		5	2 hr		410W					2	2